



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,197	11/26/2001	Thomas Reisinger	GR 99 P 1915	8423
24131	7590	04/13/2004	EXAMINER	
LERNER AND GREENBERG, PA P O BOX 2480 HOLLYWOOD, FL 33022-2480			KIM, KEVIN	
			ART UNIT	PAPER NUMBER
			2634	19.

DATE MAILED: 04/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/994,197

Applicant(s)

REISINGER ET AL.

Examiner

Kevin Y Kim

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 2-3-2004 have been fully considered but they are not persuasive. Applicant argues that Kay et al fails to teach the claimed invention because it "randomly selecting" subslots, thus failing to teach transmitting a message in temporal succession. However, it is immaterial whether the slots are selected randomly or not because either way the selected slots would be in "temporal succession," i.e., one after another. Thus, subslots in the respective slots are also transmitted in temporal succession, according to Kay et al patent.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections – 35 USC § 102

3. Claims 1,2,11 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Kay (US 5,983,112).

Kay discloses a radio communication system comprising the steps of repeatedly transmitting a message in different time slots, where a second and a third transmission is implemented on different carrier frequencies. See col.2, lines 54-65. The different frequencies are changed only within one single transmission channel. See col.1, lines 48-50. The preamble reciting a use in "a radio access control system" is not given patentable weight since it merely calls for a field of use.

Claim Rejections - 35 USC § 103

Art Unit: 2634

3. Claims 3-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kay (US 5,983,112) as applied to claim 1 above and in view of Shanbhag (US 6,314,125).

Consider claims 3 and 6. Kay discloses all the subject matter claimed except for “applying spreading to the data message by a predefined spread sequence.” Shanbhag teaches that spreading data message is well known in the art for combining, transmitting and separation of message signals, i.e., an efficient utilization of frequencies without interference. Thus, it would have been obvious to one skilled in the art at the time the invention was made to apply a spreading code to the message of Kay for the purpose of separating message signals without interference from other signals transmitted on the same frequencies.

Regarding claims 4,5,7-9, Kay discloses all the subject matter claimed, as explained above in connection with claim 3, but is silent on specific carrier frequencies or data rates. Thus, it can not be ascertained whether or not the difference between the carrier frequencies is in an order of magnitude of a data rate of the data message as claimed in claim 4 or in a range between one quarter and two times a data rate of the data message as claimed in claim 5. However, it is noted that a selection of carrier frequencies and data rate of the data is a matter of design choice, it would have been obvious to one skilled in the art at the time the invention was made to select carrier frequencies and data rate that have the claimed relation between them particularly because applicant have failed to disclosed such relationship between carrier frequencies and data rate solves any stated problems or is for any particular purposes.

5. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kay as applied to claim 1.

Art Unit: 2634

Kay discloses all the subject matter claimed but is silent on a tolerance range of carrier frequencies, it would have been obvious to one skilled in the art at the time the invention was made to set the tolerance of the carrier frequencies of Kay reasonably low, i.e., "not more than $\pm 10\%$ " because it is a well established engineering principle to have a low tolerance in order to provide stable carriers.

6. Claims 12-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kay in view of McCaslin (US 5,036,294).

Consider claims 12, 13, 16 and 17. Kay discloses all the subject matter, as explained in connection with claim 1, except for showing the specifics of the frequency generator that generates a plurality of different carrier frequencies. Referring to Fig.2, McCaslin teaches a crystal oscillator and at least one capacitor as a way of producing different carrier frequencies. Thus, it would have been obvious to one skilled in the art the time the invention was made to substitute the capacitor network including the crystal oscillator taught by McCaslin for the frequency generator of Kay. Additionally with respect to claim 16, all the frequencies selectively changed during transmission "occurs within one signal transmission channel" because all the different carrier frequencies are used in one transmission medium.

Regarding claims 14 and 18 since the carrier frequencies of Kay are changed in a predefined way, the switches 42 in the combination of Kay and McCaslin, as described above, would have obviously programmed.

Regarding claims 15 and 19 further calling for a carrier frequency control device, Kay teaches using a plurality of frequencies, as explained above, implying that a frequency selecting

Art Unit: 2634

circuit would have been connected to the capacitor network comprised of capacitors and switches, functioning as the carrier frequency generator, in the combination described above.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Y Kim whose telephone number is 703-305-4082. The examiner can normally be reached on 8AM --5PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703-305-4714. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

kvk



STEPHEN CHIN
SUPERVISORY PATENT EXAMINE.
TECHNOLOGY CENTER 2600